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09/988,222	11/19/2001	Charles C. Schuyler	1769-94	8215

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EXAMINER
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OCAMPO, MARIANNE S

ART UNIT	PAPER NUMBER
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1723

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DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/988,222

Applicant(s)

SCHUYLER ET AL. *PLS*

Examiner

Marianne S. Ocampo

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-24 and 26-31 is/are rejected.
- 7) ☒ Claim(s) 8 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

a). In page 12, the US Patent number “6,342,283” should be inserted in line 7, after the expression “US Patent No.” inside the parentheses.

b). In page 6, the reference number “20-2” after the word “ribs” in line 22, should be changed to “118-2”, since Figure 3 does not show any support ribs with this reference number (i.e. 20-2), but in fact the only support ribs shown as part of the bottom end cap 118, are indicated with reference number “118-2”.

c). In page 6, the word “rigs” in line 22 should be changed to “ribs”.

Appropriate correction is required.

2. The abstract of the disclosure is objected to because it is too long (i.e. longer than the maximum of 15 lines or 150 words). Correction is required. See MPEP § 608.01(b) and revised Rule § 1.72(b) which had been effective March 1, 2001 and had been summarized as follows :

*“The word length of the abstract, for consistency with PCT, is required not to exceed 150 words, replacing the MPEP 608.01(b) range of 50-250 words. “*

### *Drawings*

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the series of integral radial support ribs indicated as "20-2" in Figure 3, as described in the specification, page 6, lines 21 – 22. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20-2" and "118-2" have both been used to designate the (radial) support ribs, as in the specification page 6, lines 22 – 23 and in Figures 3 & 7.

5. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

6. Claims 5 – 8 and 15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

7. Claim 22 is objected to because of the following informalities: the word “cap” should be inserted after the phrase “a bottom end” in line 8. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 6, 9 – 10, 12 – 23, 26 and 28 - 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Connors et al. (WO 97/24169).

10. Concerning claim 1, Connors et al. disclose a filter cartridge comprising a generally cylindrical filter body having a fluid filtration media (16, 116, 506) and at least one length-adjustable end cap (20, 150, 508) attached to an (upper) end of the filter body, as in figs. 4b, 11a-11b and 13a-13b, and in pages 16 – 38.

11. Regarding claim 2, Connors et al. further disclose the length-adjustable end cap (20, or 508) including an annular stationary ring member (44,61, 55 of 40 or 524, 540) and a

moveable connection member (42 or 522) slideably received within the annular stationary ring member so as to be moveable longitudinally relative thereto, as in figs. 1 – 2, 4b and 13a –13b.

12. With regards to claim 3, Connors et al. also disclose the moveable connection member (42 or 522) including a cylindrical neck portion (57 or 523, 532) and a flange portion at one end of the neck portion (46 or 532), as in figs. 2, 4 and in figs. 13a -13b.

13. Concerning claim 4, Connors et al. disclose the length-adjustable end cap including an annular base member (only the first embodiment in fig. 4b, 50 and third embodiment in figs. 13a –13b, 524) attached to an end of the cylindrical filter body (16, 518) and the stationary ring (44, 61, 55 or 544) is generally cylindrical and protrudes upwardly from the annular base member (50 or 544), as in figs. 4b and 13a – 13b.

14. Regarding claim 5, Connors et al. also disclose the stationary ring member (55, 61, 44) being positioned along a radial dimension of the base member (50) so as to provide an essentially balanced pressure condition on interior and exterior regions thereof, as in figs. 1 – 2.

15. With regards to claim 6, Connors et al. also disclose the stationary ring member (55) being positioned substantially midway along a radial dimension of the annular base member (50), as in fig. 4b.

16. With respect to claim 9, Connors et al. disclose the cartridge further comprising a bottom end cap (22, 170, 510) attached to another end of the filter body opposite the length-adjustable end cap, as in figs. 1 – 2, 11a – 11b and 13a – 13b.

17. Regarding claim 10, Connors et al. also disclose the bottom end cap (22) includes an arcuate central wall (38) which protrudes into an interior space of the cylindrical filter body, as in figs. 1 – 2.

18. With regards to claim 12, Connors et al. further disclose the filter body including a non-woven mass of melt-blown polymeric fibers, as in page 26, lines 1 – 14.

19. Concerning claim 13, Connors et al. disclose the filter body including a pleated fluid filter medium, as in page 23, lines 7 – 11.

20. With respect to claim 14, Connors et al. also disclose the stationary ring member (540) including a seal ring (526) in slideable sealing contact with the neck portion (532) of the moveable connection member (522, 508), as in figs. 13a – 13b.

21. Concerning claim 15, Connors et al. further disclose the neck portion (532) including a stop member (a flange which has the contact surface 534) which contacts the seal ring (526) and thereby limit the movement of the moveable connection member (522, 508), as in fig. 13b.

22. With regards to claim 16, Connors et al. disclose the length –adjustable end cap including a stationary ring member (44, 61, 55 or 540, 524) and a moveable connection member (42 or 532, 508, 522) which carries an O-ring seal (48 or 526) and wherein the moveable connection member is slideably received within the stationary ring member (in the recess 54 of 40 or 540) such that the O-ring (48, 526) is in sliding sealing contact with the moveable connection member (42 or 532, 522), as in figs. 4b and 13a – 13b.

23. Regarding claim 17, Connors et al. further disclose the length-adjustable end cap including an annular base member (50 or 524) attached to an end of the filter body (16 or 518) and wherein the stationary ring member (55 or 540) is generally cylindrical and is integrally joined to and extends upwardly from the annular base member (50 or 524), as in figs. 4b and 13b.

24. Concerning claim 18, Connors et al. also disclose the length-adjustable end cap including a cylindrical neck portion (57 or 532) slideably received within the stationary ring member (in recess 54 of 40 or 540) and in sealing contact with the seal ring (48, 59 or 526) and a flange portion (46 or forming the contact surface 548) transversely positioned at an uppermost end of the neck portion (57 or 532), as in figs. 4b and 13b.



25. With regards to claim 19, Connors et al. disclose the neck portion (57) including a recess and an O-ring seal (59, 48) seated within the recess so as to be in sealing contact with an interior cylindrical surface (within the recess 54) of the stationary ring (40), as in fig. 4b.

26. With respect to claim 20, Connors et al. further disclose the fluid filtration media including a non-woven mass of melt-blown polymeric fibers, as in page 26, lines 1 – 14.

27. Concerning claim 21, Connors et al. disclose the fluid filtration media including at least one non-woven or woven pleated sheet of fluid filtration material, as in pages 23 - 26.

28. With respect to claim 22, Connors et al. disclose a filter cartridge comprising a filter body (16) which defines a generally cylindrical interior space, a length-adjustable top end cap (20) attached to the filter body (16) and defines an opening to allow fluid communication with the interior space of the filter body, a bottom end cap (22) attached to a lower end of the filter body to close the interior space thereat wherein the length-adjustable top end cap (22) includes a annular base member (50) attached to the filter body (16), a generally cylindrical stationary ring member (44, 61, 55) integrally joined at one end to and extending upwardly from the annular base member (50) and a moveable member (42) having a generally transverse annular support flange (46, 42) and a cylindrical neck member (57) integrally depending from the support flange (42, 46) wherein the neck member (57) is slideably received within the stationary ring member (i.e. in the recess 54) so as to move the support flange towards and away from the filter body and

thereby establish respective lesser and greater axial dimensions of the filter cartridge, as in figs. 1 – 2 and 4b.

29. Regarding claim 23, Connors et al. disclose the stationary ring member being positioned substantially midway along a radial dimension of the annular base member (50), as in fig. 4b.

30. Concerning claim 26, Connors et al. also disclose the bottom end cap (22) also including an arcuate central wall (38) which protrudes into the interior space of the filter body (16), as in figs. 1 – 2.

31. With respect to claim 28, Connors et al. further disclose the filter body including a non-woven mass of melt-blown polymeric fibers, as in page 26, lines 1 – 14.

32. Concerning claim 29, Connors et al. disclose the filter body including a pleated fluid filter medium, as in page 23, lines 7 – 11.

31. With respect to claim 30, Connors et al. disclose a filter housing (not all parts shown, 10) comprising a rigid basket member (14) having a generally cylindrical sidewall and a filter cartridge (12) as in claims 1 or 22 positioned in the basket member (14), wherein the length-

adjustable end cap (20) allows the filter cartridge (12) to assume a length dimension substantially the same as the side wall of the basket member, as in figs. 1 – 2.

33. Regarding claim 31, Connors et al. disclose a method of installing within an open basket member (14, 154, 506) of a filter housing (10) a filter cartridge (12, 112, 512) having a generally cylindrical filter body which includes a fluid filtration media (16, 116, 518) and at least one length-adjustable end cap (20, 150, 508) attached to an end of the filter body wherein the method comprises moving the filter cartridge (12, 112, 512) within the filter housing and longitudinally moving the length-adjustable end cap (20, 150 or 508) thereof until the (which is a non-standard size) filter cartridge (12, 112, 512) corresponds substantially to an effective lengthwise dimension of the basket (14, 154, 506), as in figs. 1 – 2, 11a - 11b and 13a - 13b and in pages 16 – 42.

### ***Claim Rejections - 35 USC § 103***

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35. Claims 7 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connors et al.

36. With respect to claims 7 and 24, Connors et al. further disclose the annular base member (50) including a I-shaped support rod (24) going across the interior space of the filter body, as in figs. 4a – 4b. Although Connors et al. do not disclose a cross-shaped support rod (which is basically two I-shaped support rods intersecting), it is considered obvious to one of ordinary skill in the art to modify the support rod of Connors to the particular configuration (i.e. a cross-shaped, instead of I or bar shaped), in order to provide multiple support at various points of the interior space of the filter body. See case law, In re Harza [274 F.2d, 124 USPQ 378 (CCPA 1960)] in which a mere duplication of parts (in this instance, duplication of the support rods from simple I/one bar across configuration, to that of a multiple or at least two support rods intersecting in form of a cross bar) for a multiplied effect does not carry any patentable weight or significance unless a new or unexpected result is produced. See also M.P.E.P. section 2144.04 part VI paragraph B.

37. Claims 11 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connors et al. in view of Farrow et al. (US Re 29,447).

38. With regards to claims 11 and 27, Connors et al. fail to disclose the bottom end cap having a series of integral radial support ribs. Farrow et al. teach an end cap (16, which could be a top or bottom end cap) for a filter cartridge having a series of integral radial support ribs joining two concentric rings which form the inner and outer peripheries of the end cap (16), as in figs. 1 and 6. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the bottom end cap of Connors et al. by adding the embodiment of the end cap taught by Farrow et al. in order to provide an improved bottom end cap having means for providing additional support for the lower end of the filter body.

*Allowable Subject Matter*

39. Claims 8 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

40. The following is a statement of reasons for the indication of allowable subject matter: the closest prior art include Connors et al. (WO 97/24169) and Farrow et al. (US Re. 29447). However none of these prior art and those searched, have disclosed or rendered obvious a filter cartridge as recited in claims 1 – 4 and claim 22 further having the limitation of the length-

adjustable end cap which further includes a series of radially extending buttresses joined to the stationary ring member and the annular base member thereof, as in claims 8 and 25, respectively.

### ***Conclusion***

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 5,238,717 (Boylan) and 3,850,813 (Pall et al.). These patents teach a top end cap for filter cartridges comprised of at least two portions/segments which can adjust the length of the end cap by connecting/fusing the two portions together.

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-1039. The examiner can normally be reached on Mondays to Fridays from 8:00 A.M. to 4:30 P.M..

43. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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44. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*MSO*

M.S.O.

January 17, 2003

*Walker*

W. L. WALKER

SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700